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THE IDENTITY OF THE SANPO AND DIHANG RIVERS

In his introduction to *Records of the Survey of India*, Vol. 4,¹ Colonel Burrard says:

“One of the least known portions of Asia is the mountainous area situated between the Dihang and the Yangtze Kiang. This region embraces the principal basins of the rivers Mekong, Salwin and Irrawaddy and the Himalayan catchment areas of the four principal feeders of the Brahmaputra, namely, the Luhit (Zayul), the Dibang, the Dihang and the Subansiri. The scantiness of its population, the denseness of its jungle, the altitude of the ranges, the steep precipices and the torrential streams have rendered this tract a serious obstacle to communication between India and China and between Tibet and Burma. For many years, the populous and cultivated plains of Assam have been coterminous with unexplored hills. A sharp geographical line has separated the known from the unknown, civilization from savagery. In 1911 it was decided to extend our geographical knowledge, and four detachments were organized to survey the North-East Frontier of India along a line, 600 to 700 miles in length, from the east of Burma to the north of Assam.”

This volume contains a narrative report of these survey operations. Some idea of the value of this survey work may be gained from the fact that 28,000 square miles of hitherto unexplored country were surveyed. This large region is one of the most impassable in the world. The Karakoram and the Hindu Kush have presented great difficulties to earlier surveyors and their forms have only been represented on maps by field workers after much hardship and privation. “But in some ways the mountains of the North-East Frontier are more difficult than those of the North-West. They are pathless, tractless and covered in places by thick jungle.” But the survey officers have brought their work to a successful conclusion in spite of the great natural obstacles they had to surmount.

This notice of the work will, however, be confined to a brief summary of the results of the Abor Expedition which has, at last, pro-

¹ Explorations on the North-east Frontier during 1911-12-13. Prepared under the direction of Colonel S. G. Burrard, C.S.I., R.E., F.R.S., Surveyor General of India. 91 pp. Map, ills. Calcutta, 1914. 6s.

vided proof that the Sanpo River of Tibet and the Dihang of Assam are one and the same river forming the upper course of the Brahmaputra. This fact has been accepted for many years on the authority of Kinthup, an humble Indian traveler, though his credibility was long doubted by many.

In the opinion of Colonel Burrard the most striking geographical results of all these operations have been "the discovery by the Abor survey party of the peak of Namcha Barwa, 25,445 feet high. This is the highest known peak east of Kinchinjunga

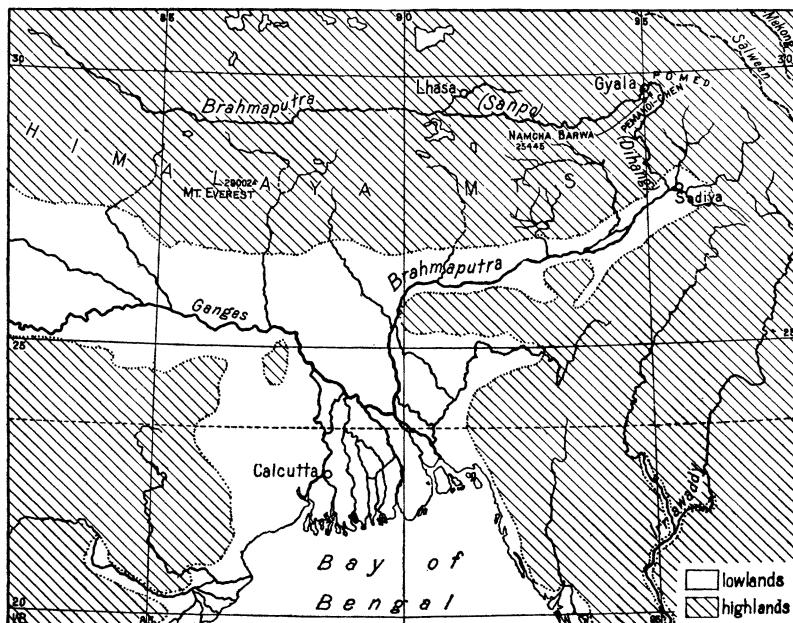


FIG. 1.—The course of the Brahmaputra, showing the continuity of the sections known as the Sanpo and the Dihang. 1:15,400,000. The recently established transverse course of the river through the Himalayas (= the Dihang) is based on a map in the report mentioned in footnote 1.

[28,146 feet and the third highest known mountain in the world], and its discovery has taken geographers by surprise. Immediately east of Kinchinjunga is the peak of Chumalhari (23,930) and further east in Central Bhutan stand the twin peaks of Kulhakangri (24,740), but no peaks above 10,000 feet have been found in the Himalayas of Assam east of longitude 93°. The discovery that Assam possesses a peak almost equal in height to Nanya Devi (25,645) marks an epoch in the history of Himalayan explorations. The

great peak of Assam far surpasses in height all the snow peaks visible from Mussoorie and Simla.''²

The report of Capt. O. H. B. Trenchard, R.E., leader of the Abor expedition (pp. 39-76), gives many details of the survey operations. It was found that after the Sanpo leaves Tibet, by cutting its way through the Himalayas from west to east, about longitude 95° E., in a gorge so utterly precipitous as to make it impossible for any man or animal to traverse it, it enters the country of Pemakoi-chen through which it flows, roughly speaking, in a south-westerly direction. The valley of the Dihang in this country (between 29° - 30° N.) is narrow with an average width of 30-40 miles, is bounded on the right bank by the well-defined, main Himalayan range and on the left bank by the equally well-defined and regular watershed between the Dihang and the Dibang Rivers.

The report says: "The identity of the Sanpo and the Dihang as one and the same river has been established to all intents and purposes. Kinthup's statement that the Sanpo broke through the Himalayas from Tibet to Pemakoi-chen in a deep gorge has been confirmed. The position of this gorge has been fixed with a fair degree of exactitude and only a short length of the Dihang River (probably not more than thirty miles measured along the bends of the river) has not been surveyed, though we are able to show this small portion on the map with tolerable certitude from local information pending the final confirmation of Captain Morshead's surveys."³

The survey of the Abor expedition fully confirms the approximate accuracy of the Indian traveler Kinthup, whose work was discredited by many critics. In 1878 the Indian survey sent a man known as G. M. N., a Lama in a Sikkim monastery, to Tibet in order to follow the course of the Sanpo and solve the problem of its destination. Kinthup, a native of Sikkim, accompanied G. M. N. as assistant. They followed the Sanpo eastward as far as the village of Gyala, near the western end of the big gorge through the Himalayas, and then returned to India.

In 1880 a Chinese Lama was engaged to continue G. M. N.'s exploration of the Sanpo. Kinthup was employed to accompany him.

² This peak was seen by explorer Nem Singh in 1879, by explorer Kinthup in 1881 and by Captain C. L. Robertson, R.E., from the Mishmi side in 1900; but Lieut. G. F. T. Oakes, R.E., and Lieut. J. A. Field, R.E., were the first to determine its height, on the present expedition, in 1912.

³ Captain Morshead's surveys were not ready for printing when this volume of the *Records* was issued. But Capt. Trenchard says "these will also confirm and of course correct the sketch map."

They reached Tibet and proceeded down the Sanpo to Gyala, where they crossed to the left bank and continued their journey to Pomed. On reaching Tong-juk Dzong, in May, 1881, the Chinese Lama sold

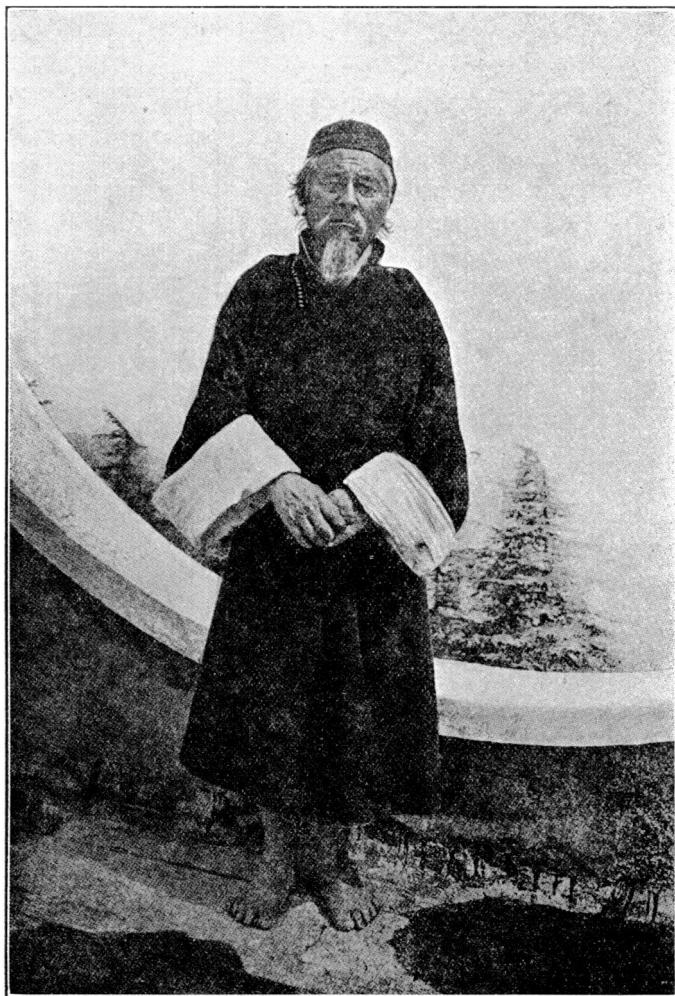


FIG. 2—Kinthup, the explorer, who first explored the Sanpo through the great Himalayan Range, 1880-1883.

From a photograph taken by Lieut. G. Burrard in 1914.

Kinthup as a slave and decamped with the proceeds. All of Kinthup's instruments and note-books were taken from him, and he had to work for his master until March, 1882, when he managed to make

his escape into Pemakoi-chen. He finally reached the monastery of Marpung, on the right bank of the Dihang, and was kindly received by the head Lama, whom he served while he remained in that region. He managed on several occasions to obtain leave of absence from Marpung on pretense of visiting holy places and thus carried out several extended journeys of explorations. At last he was able to return to India, which he reached in November, 1884, after four years' absence. Kinthup's story was not taken down and translated until two years after his return, when Colonel Tanner compiled a sketch map of the Dihang basin from Kinthup's narrative. This map has been the sole geographical record of the Dihang basin from that day to the present.

Kinthup was not a trained explorer. All his instruments, notebooks, etc., were stolen from him early in his journey and he had therefore to rely entirely on his memory in giving an account of his travels, extending over four years and covering a large area. But in view of all the evidence he adduced, few geographers have doubted the fact that the Sanpo and Dihang were the same river and formed the upper Brahmaputra. It only remained for a scientific survey to supply the final proof, which has now been done.

The Report examines Kinthup's work in the light of the recent surveys now reported by the Abor Expedition. It was all the more important to do this because certain geographers have recently expressed the opinion that Kinthup's geographical information about the Dihang Basin was merely collected by him in Tibet without even visiting the Dihang Valley and was therefore unreliable; but Captain Trenchard's report finds that, considering the fact that Kinthup was unable to keep a record of his travels, the accuracy of his account is remarkable.

First, the accuracy of his names is very striking. In Pemakoi-chen and the Abor country he gives fifty-seven names, of which thirty-four fall within the area recently surveyed. Of these thirty-four names only six were not found: two being names of camps or caves, one a village since deserted, while the other three might well be known now under different names. Of the remaining twenty-three names which Kinthup gives beyond the area recently surveyed, all except three have been confirmed by information obtained locally. Second, his description of the physical features of the different parts in which he traveled is remarkably correct. As a rule, it would be impossible to give a more accurate description in so few words. Captain Trenchard's report ends with these words:

“In short, the theory that Kinthup must have ascended some high mountain in Tibet overlooking the Dihang Basin, from which all the villages on the Dihang were pointed out and described to him and that he merely committed all these names, details of routes, etc., to memory without leaving Tibet, is utterly ridiculous, especially when advanced by those who had themselves visited even a small portion of this Dihang Basin.

“His account has been confirmed in the most remarkable manner, and we are now able to establish Kinthup’s claim to honorable record in the annals of the Survey of India, which he served with such zeal and devotion to duty.”

The portrait of Kinthup reproduced here is one of the two that accompany Trenchard’s report. The legend under the picture is reproduced exactly from that under the original photo-engraving. While substantial justice has long been rendered by most geographers to the value of his work, it is gratifying to have the importance of his geographical achievements fully substantiated by the Survey of India.

Inasmuch as the Dihang drops from an elevation of 9,000 feet to 1,000 feet above sea-level in a distance of about 100 miles, it might be reasonable to suppose that there were high falls along its course. No such falls, however, have been discovered, but for a very long distance the rapids are almost incessant. It may be noted here that other large rivers of the Himalayas drop great distances, but have no falls. Thus, as Col. Burrard remarks on p. 3, the Sutlej drops from 10,000 feet to 1,000 feet, but possesses no falls; the Ganges drops from 12,000 feet to 1,000 feet and there are no falls in the river. The average gradient of the Kali in Eastern Kumaun is perhaps greater than that of any other Himalayan river, but there are no falls upon it.